International Journal of
COMMUNICATION SYSTEMS

CONTENTS

VOLUME 7, ISSUE Nos. 1–4

ISSUE No. 1 January–March

Editorial ii

Telecommunication System Architectures: Dealing with Complexity: F. van den Dool 1

On Transient Behaviours of Slotted CSMA Protocols: L. Jereb and M. Ajmone Marsan 7

Maximal Connected Sets—Application to Microcell CDMA: A. Z. Tirkel, C. F. Osborne, N. Mee, G. A. Rankin and A. McAndrew 29

A Contention Resolution Algorithm for Input-buffered Batcher–Banyan Networks: R. Y. Awdeh and H. T. Mouftah 33

Staggered Multicast Protocol with Collision-free Acknowledgement in Multihop Spread Spectrum Packet Radio Networks: K.-W. Hung and T.-S. Yum 39

A Reinforced Movable Boundary Multiplexing Scheme with Adaptive Interpolation: Modelling and Performance Evaluation: G. Meempat and M. K. Sundareshan 49

Interferences of Digital Signals: P. Hillion 67

ISSUE No. 2 April–June

Special Issue
on
Signalling Protocols and Services for Broadband ATM Networks
Editors: Martin De Prycker and Mario P. Vecchi

Editorial Introduction 71

A Multilevel Framework for the Attribute Description of Telecommunication Services: A. De Smedt, P. Hellemans, L. Ronchetti and K. Täubig 73

An Object-oriented Approach to Dynamic Service Descriptions: P. Hellemans, U. Behnke, A. De Smedt and L. Ronchetti 85

A Methodological Approach to BISDN Signalling Performance: X. Hou, N. D. Kalogeropoulos, M. E. Lekkou, I. G. Niemegeers and I. S. Venieris 97

An Object-oriented Analysis of a BISDN Control System with a Focus on the UNI Protocol Object: H. Ouibrahim and F. J. Pattenier 113

Object-oriented Analysis of Signalling and Control in Broadband Networks: M. Veeraraghavan and T. F. La Porta 131

EXPANSE Software for Distributed Call and Connection Control: H. Bussey, S. Minzer, P. Mouchtaris, S. L. Moyer and F. Porter 149

ISSUE No. 3 July–September

Bursty ATM User Traffic Allowed by a Jitter Tolerant Leaky Bucket and its Impact on Link Utilization: H. Heiss 161

Influence of Sampling Period on Time and Frequency Stability Measurements: M. Carbonelli, D. De Seta, D. Perucchini and G. Zampilloni 177

Indexed or Abstracted by Cambridge Scientific Abstracts, Engineering Index, INSPEC, Research Alert, SciSearch and Telecommunications Abstracts.

Equivalent Bandwidth and Related Admission Criteria for ATM Systems—a Performance Study: K. M. Rege . . . 181

A Performance Analysis of the IEEE 802.6 DQDB Metropolitan Area Network Protocol: B. O'Donohoe . . . 199

A High-speed-retry Banyan Switch Architecture for Giga-bit-rate BISDN Networks: K. Genda, N. Yamanaka, Y. Arai and H. Kataoka . . . 223

Data Link Layer Design Issues in a Home Automation System: C. Douligeris, J. Khawand and C. Khawand . . . 231

A New Token Ring Protocol and its Performance for Single and Dual Ring LAN Systems: M. S. Obaidat . . . 247

CALL FOR PAPERS: Joint Issue of Concurrency and Communication Systems Journals . . . 261

ISSUE No. 4 October–December

Special Issue on Traffic Management in ATM Networks
Guest Editors: Marek Wernik and Hiroshi Saito

Guest Editorial . . . 263

A Simple Bandwidth Management Scheme for Multiservice ATM Networks: G. Bianchi and V. Trecordi . . . 265

VP Dimensioning for High-speed Data Communication in ATM Networks: H. Saito . . . 275

Performance Analysis for the Dynamic Virtual Path Bandwidth Control Method in ATM Networks: K.-I. Baba, M. Murata and H. Miyahara . . . 283

Adaptive Bandwidth Management in ATM Networks: Z. Dziong, O. Montanuy and L. G. Mason 295

Virtual Spacing for Flexible Traffic Control: J. W. Roberts . . . 307

Evolution and Service Requirements of CBR Applications on ATM Networks: S. I. A. Shah, P. Ashton and M. Wernik . . . 319

Temporal Placement Control of Video Frames in ATM Networks: D.-S. Lee and B. Sengupta . . . 329

Modelling VBR Video over Networks End-to-end using Deterministic Smoothing at the Source: N. Shroff and M. Schwartz . . . 337

CALL FOR PAPERS: Joint Issue of *Concurrency: Practice and Experience* and the *International Journal of Communication Systems* . . . 349

AUTHOR INDEX . . . 351

KEY WORD INDEX . . . 352